

In-Class Worksheet 11: Computable Reductions

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Construct the following reductions

- A computational reduction from the ordinary halting problem to $H'_{TM} = \{ M \mid M \text{ halts on every input} \}$
- A computational reduction *from* the language $\{ 0^{2^n} \mid n \geq 0 \}$ to the language $\{0\}$ (this is actually an example of a more general principle)
- A reduction from the language $\{(N,w) \mid N \text{ is an NFA that accepts } w\}$ to the language $\{(M,w) \mid M \text{ is a DFA that accepts } w\}$